

IN THE CLAIMS:

Please amend claims 12 and 14-17 as follows.

12. (Currently Amended) A method of disposing of a solid rocket propellant, comprising the steps of:

- (a) contacting a propellant that comprises a hydroxy-terminated caprolactone ether (HTCE) binder and at least one or more solid compounds dispersed in the binder with a solution ~~of capable~~ capable of hydrolyzing the binder to form hydrolyzed caprolactone and poly(tetramethylene ether), and
- (b) removing solids remaining in the solution after the binder hydrolyzes.

13. (Previously presented) The method of claim 12, wherein the solids are recovered and recycled.

14. (Currently Amended) The method of claim 12, wherein the hydrolyzed caprolactone and the poly(tetramethylene ether) ~~binder ingredients~~ are recovered and recycled.

15. (Currently Amended) The method of claim 12, wherein at least one solid compound ~~is an~~ comprises an oxidizer that comprises ammonium nitrate, ammonium dinitramide, cyclotrimethylene trinitramide, or cyclotetramethylene tetranitramine and the propellant further comprises a plasticizer that comprises n-butyl nitrateethyl nitramine, trimethylol ethane trinitrate, or triethyleneglycol dinitrate, wherein the propellant comprises about 4 weight % to about 10 weight % HTCE binder, about 45 weight % to about 75 weight % oxidizer, and about 6 weight % to about 18 weight % plasticizer.

16. (Currently Amended) The method of claim 12, wherein at least one solid compound ~~is an~~ comprises an oxidizer that comprises ammonium perchlorate and the propellant further comprises a plasticizer that comprises n-butyl nitrateethyl nitramine, trimethylol ethane trinitrate, triethyleneglycol dinitrate, dioctyl adipate, or isodecyl

pelargonate wherein the propellant comprises about 4 weight % to about 10 weight % HTCE binder, about 65 weight % to about 86 weight % oxidizer, and about 5 weight % to about 12 weight % plasticizer.

17. (Currently Amended) The method of claim 12, wherein at least one solid compound ~~is an~~ comprises an oxidizer that comprises ammonium perchlorate, ammonium nitrate, ammonium dinitramide, cyclotrimethylene trinitramide, or cyclotetramethylene tetranitramine and further comprises an aluminum or boron metal fuel and a plasticizer that comprises trimethylol ethane trinitrate, triethyleneglycol dinitrate, dioctyl adipate, or isodecyl pelargonate wherein the propellant comprises about 4 weight % to about 10 weight % HTCE binder, about 45 weight % to about 75 weight % oxidizer, about 15 weight % to about 24 weight % metal fuel and about 5 weight % to about 12 weight % plasticizer.